SECTION 5 ADDITIONAL COSTS

5.1 Retrofit Costs

EPA assigned costs to the CWT Industry on both an option- and facility-specific basis. The option-specific approach estimated compliance cost for a sequence of individual treatment technologies, corresponding to a particular regulatory option, for a subset of facilities defined as belonging to that regulatory subcategory. Within the costing of a specific regulatory option, EPA assigned treatment technology costs on a facility-specific basis depending upon the technologies determined to be currently in-place at the facility.

Once EPA determined that a treatment technology cost should be assigned to a particular facility, EPA considered two scenarios. The first was the installation of a new individual treatment technology as a part of a new treatment train. The full capital costs presented in Sections 2 through 4 of this document apply to this scenario. The second scenario was the installation of a new individual treatment technology which would have to be integrated into an existing in-place treatment train. For these facilities, EPA applied retrofit costs. These retrofit costs cover such items as piping and structural modifications which would be required in an existing piece of equipment to accommodate the installation of a new piece of equipment prior to or within an existing treatment train.

For all facilities which received retrofit costs, EPA added a retrofit factor of 20 percent of the total capital cost of the newly-installed or upgraded treatment technology unit that would need to be integrated into an existing treatment train. These costs are in addition to the specific treatment technology capital costs calculated with the technology specific equations described in earlier sections.

5.2 Monitoring Costs

CWT facilities that discharge process wastewater directly to a receiving stream or indirectly to a POTW will have monitoring costs. EPA regulations require both direct discharge with NPDES permits and indirect dischargers subject to categorical pretreatment standards to monitor their effluent.

EPA used the following generalizations to estimate the CWT monitoring costs:

1. EPA included analytical cost for parameters at each subcategory as follows:

   - TSS, O&G, Cr+6, total CN, and full metals analyses for the metals subcategory direct dischargers, and Cr+6, total CN, and full metals analyses for the metals subcategory indirect dischargers;

   - TSS, O&G, and full metals and semi-volatiles analyses for the oils subcategory option 8 and 9 direct dischargers, and full metals, and semi-volatiles for oils subcategory options 8 and 9 indirect dischargers; and

   - TSS, O&G, and full metals, volatiles and semi-volatiles analyses for the oils subcategory direct dischargers, and full metals, volatiles, and semi-volatiles for oils subcategory option 8V and 9V indirect dischargers; and

   - TSS, BOD_5, O&G, 6 individual metals, volatiles, and semi-volatiles analyses for the organics subcategory option 3 direct dischargers, and 6 individual metals, volatiles, and semi-volatiles analyses for the organics subcategory option 3 indirect dischargers; and

   - TSS, BOD_5, O&G, 6 individual metals, and semi-volatiles analyses for the organics subcategory option 4 direct dischargers, and 6 individual metals and semi-volatiles analyses for the organics subcategory option 4 indirect dischargers.

EPA notes that these analytical costs may be overstated for the oils and the organics

subcategories because EPA's final list of pollutants proposed for regulation for these subcategories do not include all of the parameters included above.

2. The monitoring frequencies are listed in Table 5-1 and are as follows:

Table 5-1. Monitoring Frequency Requirements

Parameter	Monitoring Frequency (samples/month)		
	Metals Subcategory	Oils Subcategory	Organics Subcategory
Conventionals*	20	20	20
Total Cyanide and Cr+6	20	-	-
Metals	20	4	4
Semi-Volatile Organics	-	4	4
Volatile Organics	-	4**	4**

* Conventional monitoring for direct dischargers only.

** Volatile organics monitoring for oils option 8V and 9V and organics option 3 only.

3. For facilities in multiple subcategories, EPA applied full multiple, subcategory-specific monitoring costs.

4. EPA based the monitoring costs on the number of outfalls through which process wastewater is discharged. EPA multiplied the cost for a single outfall by the number of outfalls to arrive at the total costs for a facility. For facilities for which this information is not available, EPA assumed a single outfall per facility.

5. EPA did not base monitoring costs on flow rate.

6. EPA did not include sample collection costs (labor and equipment) and sample shipping costs, and

7. The monitoring cost (based on frequency and analytical methods) are incremental to the

monitoring currently being incurred by the CWT Industry. EPA applied credit to facilities for current monitoring-in-place (MIP). For facilities where actual monitoring frequencies are unknown, EPA estimated monitoring frequencies based on other subcategory facilities with known monitoring frequencies.

The cost of the analyses needed to determine compliance for the CWT pollutants are shown below in Table 5-2. EPA obtained these costs from actual quotes given by vendors and converted to 1989 dollars using the ENR's Construction Cost Index.

Table 5-2. Analytical Cost Estimates

Analyses	Cost ($1989)
BOD_5	$20
TSS	$10
O&G	$32
Cr+6	$20
Total CN	$30
Metals:	$335
Total (27 Metals)	$335
Per Metal[1]	$35
Volatile Organics (method 1624)[2]	$285
Semi-volatile Organics (method 1625)[2]	$615

[1] For 10 or more metals, use the full metals analysis cost of $335.

[2] There is no incremental cost per compound for methods 1624 and 1625 (although there may be a slight savings if the entire scan does not have to be reported). Use the full method cost, regardless of the actual number of constituent parameters required.

5.3 RCRA Permit Modification Costs

Respondents to the WTI Questionnaire who indicated that their RCRA Part B permits were modified were asked to report the following information pertaining to the cost of obtaining the modification:

- Legal fees;
- Administrative costs;
- Public relations costs;
- Other costs; and
- Total costs.

EPA also requested the reason for the permit modification. Table 5-3 lists the RCRA permit modification costs reported for installation of new units, installation of new technology, and modifications to existing equipment. As shown, the average cost for these permit modifications is $31,400. EPA anticipates that many CWT facilities with RCRA Part B permits will be required to modify their permits to include the upgrade of existing equipment and/or the installation of new treatment technologies to achieve the proposed CWT effluent limitations and standards. Therefore, for all RCRA B facilities, EPA additionally included a one-time cost of $31,400 to modify their permit.

Table 5-3. RCRA Permit Modification Costs Reported in WTI Questionnaires

Modification	QID	Year	Total Cost (reported $)	Total Cost (1989 $)
New Units	081	1990	26,000	25,357
	255	1990	7,000	6,827
New Technology	081	1990	82,000	79,793
	090	1990	6,300,000*	6,144,231*
Modify Existing Equipment	402	1991	14,080	13,440
Average	-	-	-	31,400

* This cost includes equipment and installation costs; no cost breakdown is given. Therefore, this data was not used in calculating the average cost.

5.4 Land Costs

An important factor in the calculation of treatment technology costs is the value of the land needed for the installation of the technology. To determine the amount of land required for costing purposes, EPA calculated the land requirements for each treatment technology for the range of system sizes. EPA fit these land requirements to a curve and calculated land requirements, in acres, for every treatment system costed. EPA then multiplied the individual land requirements by the corresponding state land cost estimates to obtain facility-specific cost estimates.

EPA used different land cost estimates for each state rather than a single nationwide average since land costs may vary widely across the country. To estimate land costs for each state, EPA obtained average land costs for suburban sites for each state from the 1990 Guide to Industrial and Real Estate Office Markets survey. EPA based these land costs on "unimproved sites" since, according to the survey, they are the most desirable. Table 5-4 presents the estimated unit land prices for the unimproved suburban sites of major cities and the averages for each state and region.

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: Northeast

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Connecticut	Hartford	1.37	0.92	0.58
	New Haven	1.85	1.60	1.15
	State Average Cost	1.61	1.26	0.87
	Estimated State Cost/Acre($)	70,132	54,886	37,679
Maine	Portland	0.60	0.40	0.35
	State Average Cost	0.60	0.40	0.35
	Estimated State Cost/Acre($)	26,136	17,424	15,246
Massachusetts	Boston	-	2.00	1.50
	Springfield	1.45	1.10	0.75
	State Average Cost	1.45	1.55	1.13
	Estimated State Cost/Acre($)	63,162	67,518	49,005
New Hampshire	Nashua	1.50	1.15	1.00
	State Average Cost	1.50	1.15	1.00
	Estimated State Cost/Acre($)	65,340	50,094	43,560
New Jersey	Central	2.00	1.50	1.00
	Northern	4.00	3.50	2.50
	Southern	1.15	1.10	-
	State Average Cost	2.38	2.03	1.75
	Estimated State Cost/Acre($)	103,673	88,426	76,230

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: Northeast

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
New York	Albany	1.20	1.00	0.40
	Buffalo	0.25	0.15	0.12
	Rochester	0.75	0.50	0.25
	Rockland/Westchester Counties	20.00	12.00	-
	Syracuse	0.40	0.35	0.25
	State Average Cost	4.52	2.80	0.26
	Estimated State Cost/Acre($)	196,891	121,968	11,180
Pennsylvania	Philadelphia	0.90	0.80	0.80
	Pittsburgh	1.00	0.60	0.35
	State Average Cost	0.95	0.70	0.58
	Estimated State Cost/Acre($)	41,382	30,492	25,047
Rhode Island		*	*	*
Vermont		*	*	*
REGIONAL	AVERAGE REGIONAL COST	1.86	1.41	0.85
	ESTIMATED REGIONAL COST/ACRE($)	80,959	61,544	36,964

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: North Central

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Illinois	Chicago	1.65	1.50	1.25
	Quad Cities	0.25	0.20	0.15
	State Average Cost	0.95	0.85	0.70
	Estimated State Cost/Acre($)	41,382	37,026	30,492
Indiana	Gary-Hammond	0.60	0.60	0.50
	Indianapolis	2.30	-	-
	South Bend	0.34	0.20	0.10
	Terre Haute	0.50	0.10	0.05
	State Average Cost	0.94	0.30	0.22
	Estimated State Cost/Acre($)	40,728	13,068	9,438
Iowa	Des Moines	0.30	0.25	0.20
	Quad Cities	0.25	0.20	0.15
	Sioux City	0.25	0.15	0.10
	State Average Cost	0.27	0.20	0.15
	Estimated State Cost/Acre($)	11,616	8,712	6,534
Kansas	Kansas City	-	0.20	0.20
	Wichita	0.23	0.09	0.02
	State Average Cost	0.23	0.15	0.11
	Estimated State Cost/Acre($)	10,019	6,316	4,792
Michigan	Grand Rapids	0.85	0.40	0.18
	Jackson	0.20	0.15	0.10
	State Average Cost	0.53	0.28	0.14
	Estimated State Cost/Acre($)	22,869	11,979	6,098
Minnesota	Minneapolis/ St. Paul	1.00	0.25	0.20
	State Average Cost	1.00	0.25	0.20
	Estimated State Cost/Acre($)	43,560	10,890	8,712

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: North Central

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Missouri	Kansas City	-	0.20	0.20
	St Louis	1.50	1.10	1.00
	State Average Cost	1.50	0.65	0.60
	Estimated State Cost/Acre($)	65,340	28,314	26,136
Ohio	Akron	0.80	0.25	0.20
	Cincinnati	0.75	0.50	0.55
	Cleveland	0.40	0.30	0.17
	Columbus	0.25	0.18	0.12
	Dayton	0.25	0.20	0.15
	State Average Cost	0.49	0.29	0.23
	Estimated State Cost/Acre($)	21,344	12,458	9,932
Nebraska	Omaha	0.70	0.60	0.40
	State Average Cost	0.70	0.60	0.40
	Estimated State Cost/Acre($)	30,492	26,136	17,424
North Dakota		*	*	*
South Dakota		*	*	*
Wisconsin	Milwaukee	0.60	0.35	0.25
	State Average Cost	0.60	0.35	0.25
	Estimated State Cost/Acre($)	26,136	15,246	10,890
REGIONAL	AVERAGE REGIONAL COST	0.72	0.89	0.30
	ESTIMATED REGIONAL COST/ACRE($)	31,407	16,988	13,068

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: South

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Alabama	Birmingham	1.00	0.50	0.30
	Mobile	0.75	0.50	0.50
	State Average Cost	0.88	0.50	0.40
	Estimated State Cost/Acre($)	38,115	21,780	17,424
Arkansas	Fort Smith	0.75	0.60	0.50
	Little Rock	0.15	0.10	0.10
	State Average Cost	0.45	0.35	0.30
	Estimated State Cost/Acre($)	19,602	15,028	13,068
Delaware	Wilmington	1.50	1.25	1.00
	State Average Cost	1.50	1.25	1.00
	Estimated State Cost/Acre($)	65,340	54,450	43,560
Florida	Jacksonville	1.00	1.00	0.75
	Ft Lauderdale	4.50	3.50	3.50
	Lakeland	0.45	0.45	0.30
	Melbourne/ South Brevard Cty	0.80	0.80	0.80
	Miami	3.00	1.60	-
	Orlando	1.25	0.50	0.50
	Sarasota/Bradenton	0.85	0.65	0.50
	Tampa	1.75	1.25	1.25
	West Palm Beach	3.10	2.25	1.75
	State Average Cost	1.86	1.33	1.17
	Estimated State Cost/Acre($)	80,828	58,080	50,911
Georgia	Atlanta	2.00	1.75	1.25
	State Average Cost	2.00	1.75	1.25
	Estimated State Cost/Acre($)	87,120	76,230	54,450

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: South

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Kentucky	Louisville	0.80	0.70	0.50
	State Average Cost	0.80	0.70	0.50
	Estimated State Cost/Acre($)	34,848	30,492	21,780
Louisiana	New Orleans	2.00	2.00	2.00
	Shreveport	1.00	0.50	0.30
	State Average Cost	1.50	1.25	1.15
	Estimated State Cost/Acre($)	65,340	54,450	50,094
Maryland	Baltimore	3.00	3.00	1.75
	State Average Cost	3.00	3.00	1.75
	Estimated State Cost/Acre($)	130,680	130,680	76,230
Mississippi	Jackson	0.50	0.20	0.20
	State Average Cost	0.50	0.20	0.20
	Estimated State Cost/Acre($)	21,780	8,712	8,712
North Carolina	Charlotte	0.50	0.40	0.30
	Greensboro	0.90	0.75	-
	Raleigh	1.00	1.50	1.00
	State Average Cost	0.80	0.88	0.65
	Estimated State Cost/Acre($)	34,848	38,478	28,314
Oklahoma	Oklahoma City	0.70	0.75	0.50
	Tulsa	0.50	0.50	0.40
	State Average Cost	0.60	0.63	0.45
	Estimated State Cost/Acre($)	26,136	27,225	19,602
South Carolina	Charleston	0.75	0.50	0.30
	Columbia	0.70	0.40	0.25
	Greenville	0.65	0.45	0.40
	State Average Cost	0.70	0.45	0.32
	Estimated State Cost/Acre($)	30,492	19,602	13,794

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: South

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Tennessee	Chattanooga	0.40	0.60	0.50
	Knoxville	0.45	0.25	0.15
	Memphis	1.00	0.75	0.55
	Nashville	0.80	0.50	0.50
	State Average Cost	0.66	0.43	0.35
	Estimated State Cost/Acre($)	28,859	18,513	15,246
Texas	Austin	0.75	0.60	0.50
	Corpus Christi	1.25	0.50	0.20
	Dallas	2.50	2.00	1.50
	Fort Worth	1.00	0.75	0.50
	Houston	2.50	2.00	1.00
	San Antonio	0.85	0.65	0.65
	State Average Cost	1.48	1.08	0.73
	Estimated State Cost/Acre($)	64,251	47,190	31,581
Virginia	Richmond	0.75	1.00	0.75
	Roanoke	1.25	1.00	0.75
	State Average Cost	1.00	1.00	0.75
	Estimated State Cost/Acre($)	43,560	43,560	32,670
District of Columbia	Washington	4.50	3.50	-
	State Average Cost	4.50	3.50	-
	Estimated State Cost/Acre($)	196,020	152,460	-
West Virginia		*	*	*
REGIONAL	AVERAGE REGIONAL COST	1.39	1.14	0.73
	ESTIMATED REGIONAL COST/ACRE($)	60,521	49,658	31,857

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: West

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Alaska		*	*	*
Arizona	Phoenix	2.25	1.50	0.75
	Tucson	1.00	0.60	0.25
	State Average Cost	1.63	1.05	0.50
	Estimated State Cost/Acre($)	70,785	45,738	21,780
California	Contra Costa	3.00	1.50	-
	Orange County	12.00	11.00	-
	San Fernando Valley	7.00	6.00	5.00
	San Gabriel Valley	7.50	4.50	-
	South Bay	18.00	18.00	18.00
	Marin & Sonoma Counties	4.00	2.50	-
	San Diego	6.00	6.00	5.00
	Stockton	1.20	0.60	0.50
	State Average Cost	7.34	6.26	7.13
	Estimated State Cost/Acre($)	319,622	272,795	310,365
Colorado	Denver	1.25	1.00	0.75
	State Average Cost	1.25	1.00	0.75
	Estimated State Cost/Acre($)	54,450	43,560	32,670
Hawaii**	Honolulu	30.00	20.00	-
	State Average Cost	30.00	20.00	-
	Estimated State Cost/Acre($)	1,306,800	871,200	-

Table 5-4. Unimproved Land Costs for Suburban Areas - Region: West

State	City	Land Costs ($/ft^2)		
		0 - 10 Acres	10 - 100 Acres	>100 Acres
Idaho		*	*	*
Montana		*	*	*
Nevada	Reno	1.25	0.75	0.50
	State Average Cost	1.25	0.75	0.50
	Estimated State Cost/Acre($)	54,450	32,670	21,780
New Mexico	Albuquerque	1.00	0.50	0.35
	State Average Cost	1.00	0.50	0.35
	Estimated State Cost/Acre($)	43,560	21,780	15,246
Oregon	Portland	2.00	1.00	0.50
	State Average Cost	2.00	1.00	0.50
	Estimated State Cost/Acre($)	87,120	43,560	21,780
Utah		*	*	*
Washington	Seattle - Eastside	4.50	3.50	-
	Spokane	0.35	0.20	0.11
	State Average Cost	2.43	1.85	0.11
	Estimated State Cost/Acre($)	105,633	80,586	4,792
Wyoming		*	*	*
REGIONAL	AVERAGE REGIONAL COST	2.41	1.77	1.41
	ESTIMATED REGIONAL COST/ACRE($)	104,980	77,101	61,233

* No data available for state, use regional average.

\- No data available for city or area indicated.

** Hawaii was not included in the regional average calculations.

The survey additionally provides land costs broken down by size ranges. These are zero to 10 acres, 10 to 100 acres, and greater than 100 acres. Since CWT facilities fall into all three size ranges (based on responses to the WTI Questionnaire), EPA averaged the three size-specific land costs for each state to arrive at the final land costs for each state. Table 5-5 presents a summary of the estimated land prices for each state.

The survey did not provide land cost estimates for Alaska, Idaho, Montana, North Dakota, Rhode Island, South Dakota, Utah, Vermont or West Virginia. For these states, EPA used regional averages of land costs. EPA determined the states comprising each region also based on the aforementioned survey since the survey categorizes the states by geographical region (northeast, north central, south, and west). In estimating the regional average costs for the western region, EPA did not include Hawaii since Hawaii's land cost is high and would have skewed the regional average.

Table 5-6 lists the land cost per acre for each state. As Table 5-6 indicates, the least expensive state is Kansas with a land cost of $7,042 per acre and the most expensive state is Hawaii with a land cost of $1,089,000 per acre.

Table 5-5. Summary of Land Costs for Unimproved Suburban Areas -

Region: Northeast

State	Land Costs per Acre ($)		
	0 - 10 Acres	10 - 100 Acres	>100 Acres
Connecticut	70,132	54,886	37,679
Maine	26,136	17,424	15,246
Massachusetts	63,162	67,518	49,005
New Hampshire	65,340	50,094	43,560
New Jersey	103,673	88,426	76,230
New York	196,891	121,968	11,180
Pennsylvania	41,382	30,492	25,047
Rhode Island	*	*	*
Vermont	*	*	*
ESTIMATED REGIONAL COST/ACRE($)	80,959	61,544	36,964

Region: North Central

Illinois	41,382	37,026	30,492
Indiana	40,728	13,068	9,438
Iowa	11,616	8,712	6,534
Kansas	10,019	6,316	4,792
Michigan	22,869	11,979	6,098
Minnesota	43,560	10,890	8,712
Missouri	65,340	28,314	26,136
New Mexico	*	*	*
Ohio	21,344	12,458	9,932
Nebraska	30,492	26,136	17,424
North Dakota	*	*	*
South Dakota	*	*	*
Wisconsin	26,136	15,246	10,890
ESTIMATED REGIONAL COST/ACRE($)	31,407	16,988	13,068

Table 5-5 (cont.). Summary of Land Costs for Unimproved Suburban Areas -

Region: South

State	Land Costs per Acre ($)		
	0 - 10 Acres	10 - 100 Acres	>100 Acres
Alabama	38,115	21,780	17,424
Arkansas	19,602	15,028	13,068
Delaware	65,340	54,450	43,560
Florida	80,828	58,080	50,911
Georgia	87,120	76,230	54,450
Kentucky	34,848	30,492	21,780
Louisiana	65,340	54,450	50,094
Maryland	130,680	130,680	76,230
Mississippi	21,780	8,712	8,712
North Carolina	34,848	38,478	28,314
Oklahoma	26,136	27,225	19,602
South Carolina	30,492	19,602	13,794
Tennessee	28,859	18,513	15,246
Texas	64,251	47,190	31,581
Virginia	43,560	43,560	32,670
District of Columbia	196,020	152,460	-
West Virginia	*	*	*
ESTIMATED REGIONAL COST/ACRE($)	60,521	49,658	31,857

Table 5-5 (cont.). Summary of Land Costs for Unimproved Suburban Areas -

Region: West

State	Land Costs per Acre ($)		
	0 - 10 Acres	10 - 100 Acres	>100 Acres
Alaska	*	*	*
Arizona	70,785	45,738	21,780
California	319,622	272,795	310,365
Colorado	54,450	43,560	32,670
Hawaii**	1,306,800	871,200	*
Idaho	*	*	*
Montana	*	*	*
Nevada	54,450	32,670	21,780
New Mexico	43,560	21,780	15,246
Oregon	87,120	43,560	21,780
Utah	*	*	*
Washington	105,633	80,586	4,792
Wyoming	*	*	*
ESTIMATED REGIONAL COST/ACRE($)**	104,980	77,101	61,233

* No data available for state, use regional average.

** Hawaii was not included in the regional average calculations.

Table 5-6. State Land Costs for the CWT Industry

State	Land Cost per Acre (1989 $)	State	Land Cost per Acre (1989 $)
Alabama	22,773	Nebraska	24,684
Alaska*	81,105	Nevada	36,300
Arizona	46,101	New Hampshire	52,998
Arkansas	15,899	New Jersey	89,443
California	300,927	New Mexico	26,929
Colorado	43,560	New York	110,013
Connecticut	54,232	North Carolina	33,880
Delaware	54,450	North Dakota*	20,488
Florida	63,273	Ohio	14,578
Georgia	72,600	Oklahoma	24,321
Hawaii	1,089,000	Oregon	50,820
Idaho*	81,105	Pennsylvania	32,307
Illinois	36,300	Rhode Island*	59,822
Indiana	21,078	South Carolina	21,296
Iowa	8,954	South Dakota*	20,488
Kansas	7,042	Tennessee	20,873
Kentucky	29,040	Texas	47,674
Louisiana	56,628	Utah*	81,105
Maine	19,602	Vermont*	59,822
Maryland	112,530	Virginia	39,930
Massachusetts	59,895	Washington	63,670
Michigan	13,649	West Virginia*	47,345
Minnesota	21,054	Wisconsin	17,424
Mississippi	13,068	Wyoming*	81,105
Missouri	39,930	Washington DC	174,240
Montana*	81,105		

* No data available for state, use regional average.

SECTION 6 REFERENCES

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